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(71) Applicant(s)

**The Sonning Heating Company Limited**

(Incorporated in the United Kingdom)

**46 High Street, Twyford, READING, RG10 9AH,  
United Kingdom**

(72) Inventor(s)

**Raymond Bradley**

(74) Agent and/or Address for Service

**Boult Wade Tennant  
27 Funnal Street, LONDON, EC4A 1PQ,  
United Kingdom**

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**GB 2178945 A US 3915144 A**

(58) Field of Search

**UK CL (Edition L ) A4D D9A**

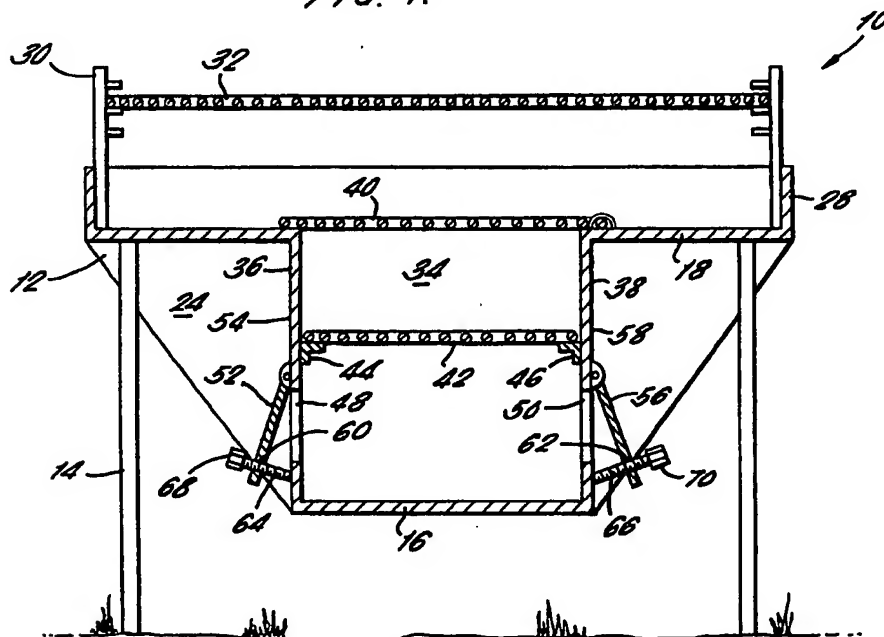
**INT CL<sup>5</sup> A47J 37/07**

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(54) Barbecues

(57) A barbecue 10 is disclosed comprising a food supporting grill or gridiron 32, a first grate 40 below the grill to support a combustible medium, a second grate 42 below the first grate to support an igniting medium, and a collecting receptacle 16 below the second grate to collect matter falling from the grill or the grates. In use, an igniting medium, e.g. paper, is placed on the second grate, a combustible medium, e.g. charcoal, is placed on the first grate and the igniting medium lit to ignite the combustible medium. This allows a safer igniting medium to be used. A brazier with a handle is also disclosed which, alternatively, may be used to ignite the combustible medium by employing an igniting medium and then transferring the lit combustible medium to the barbecue. The brazier may also be used as a barbecue when it is provided with a grill.

*FIG. 1.*



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

FIG. 1.

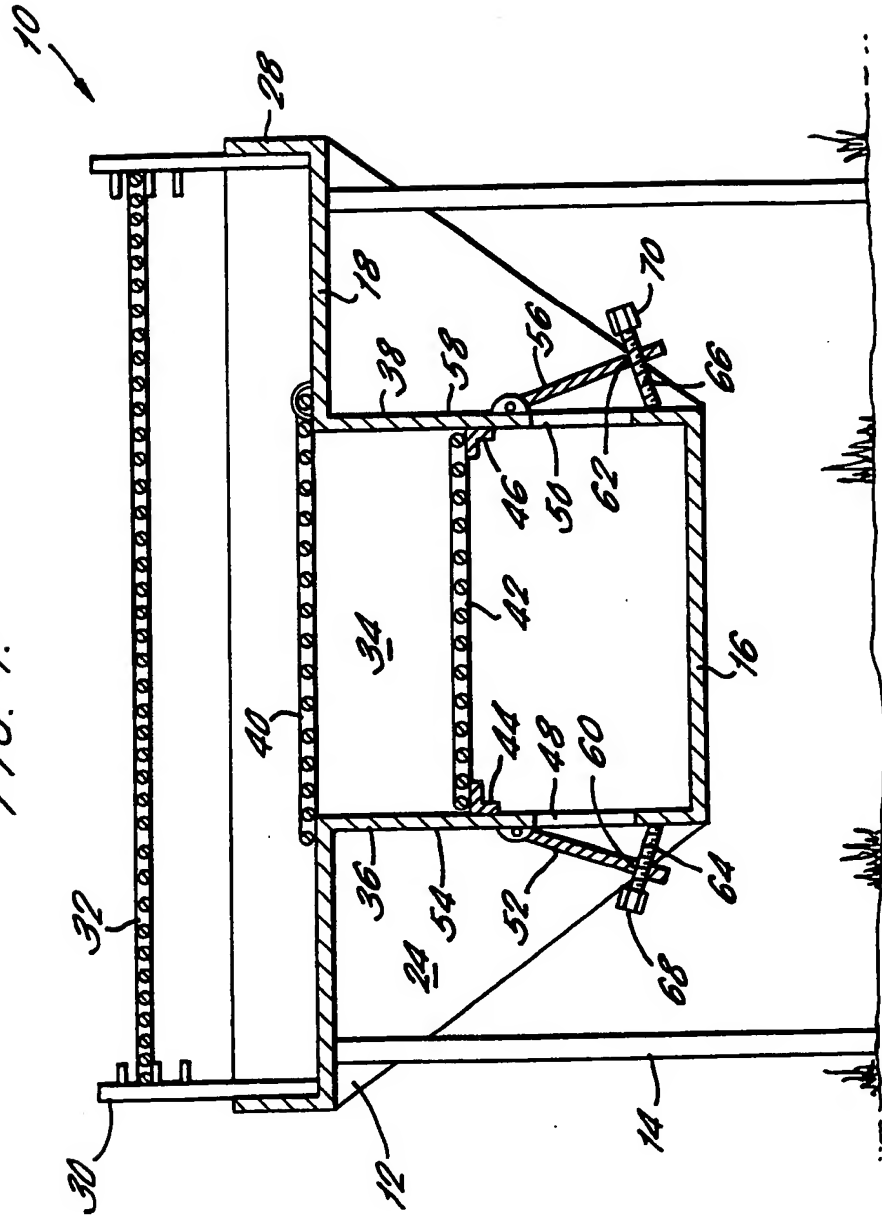
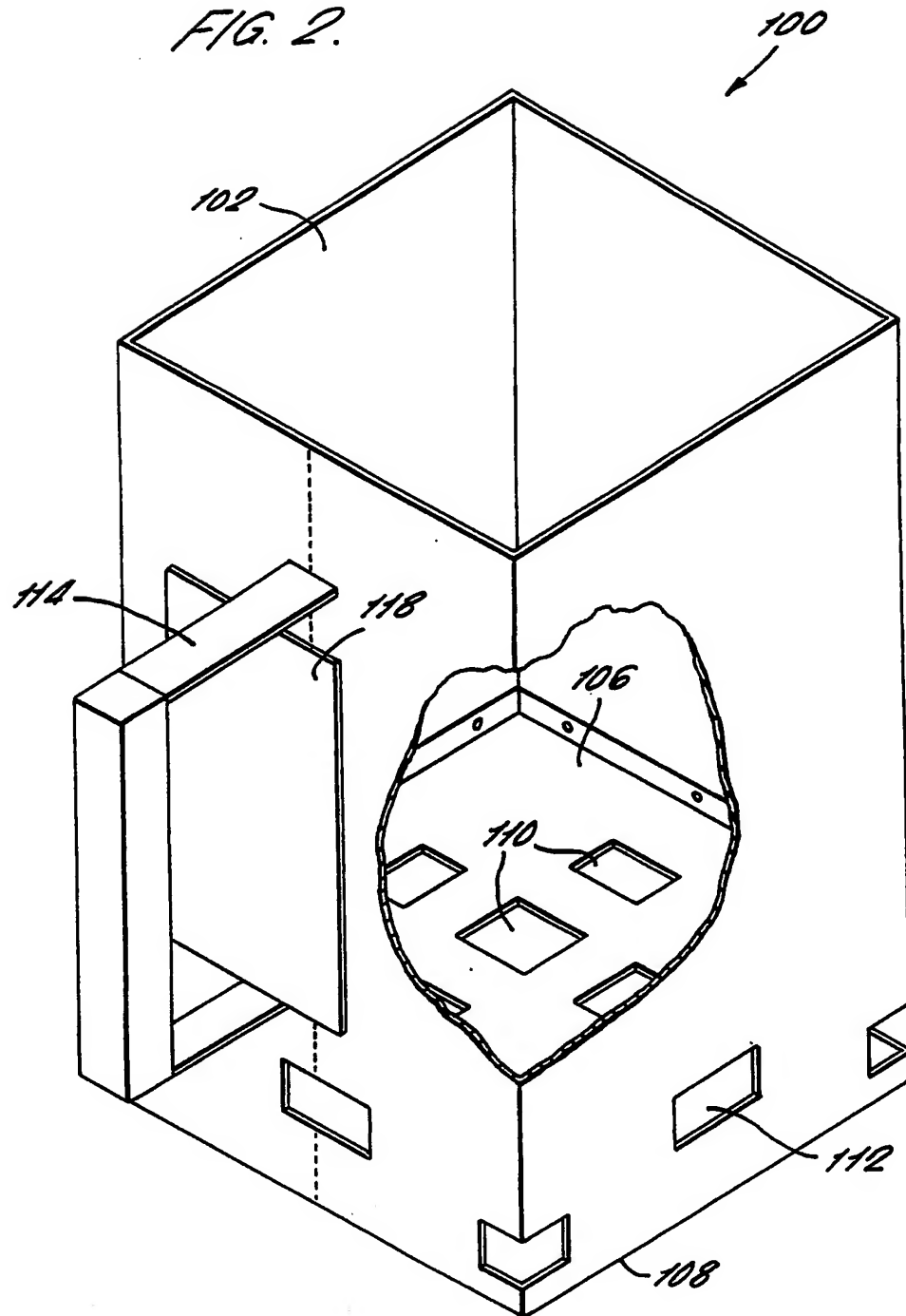
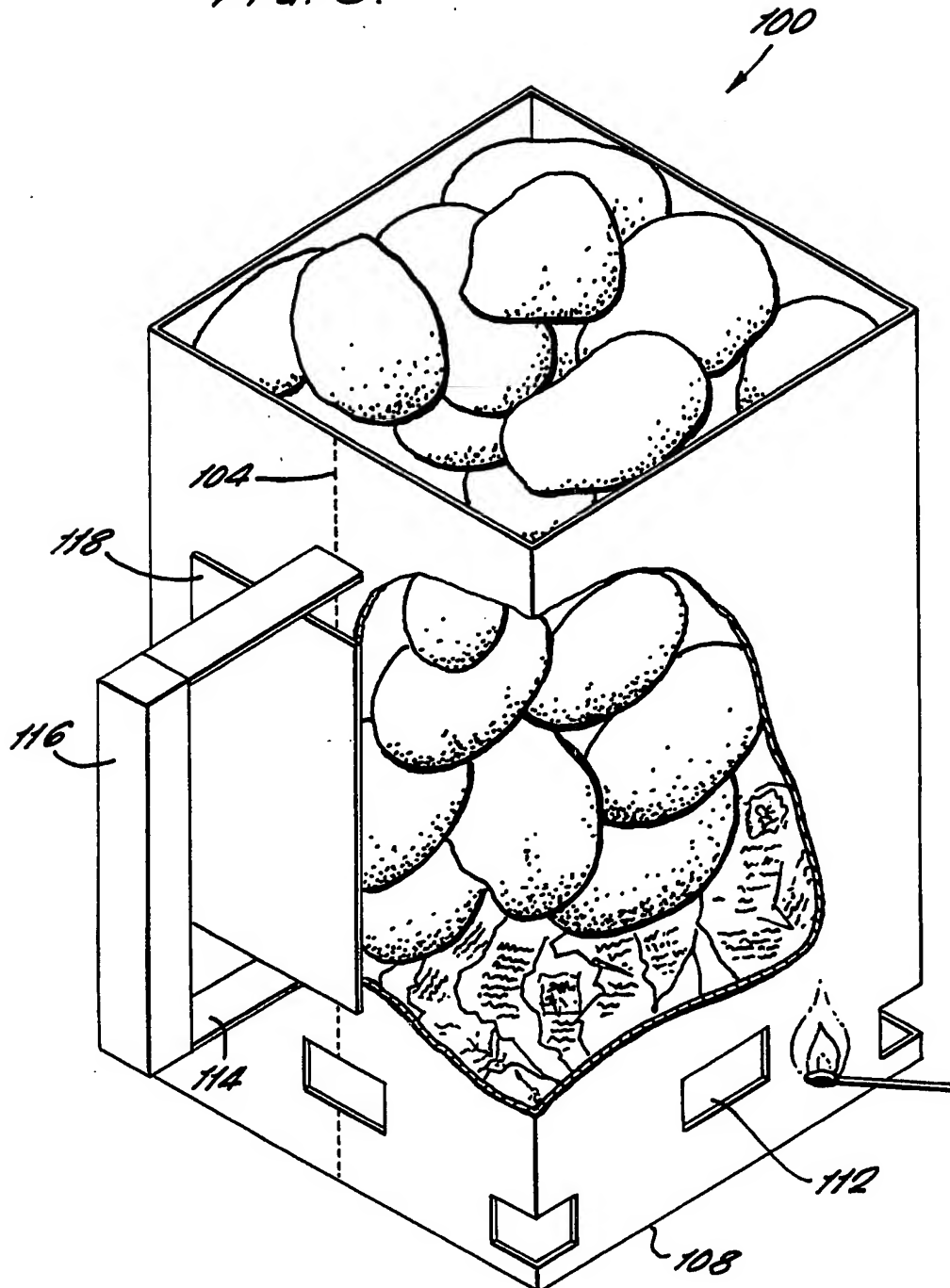


FIG. 2.



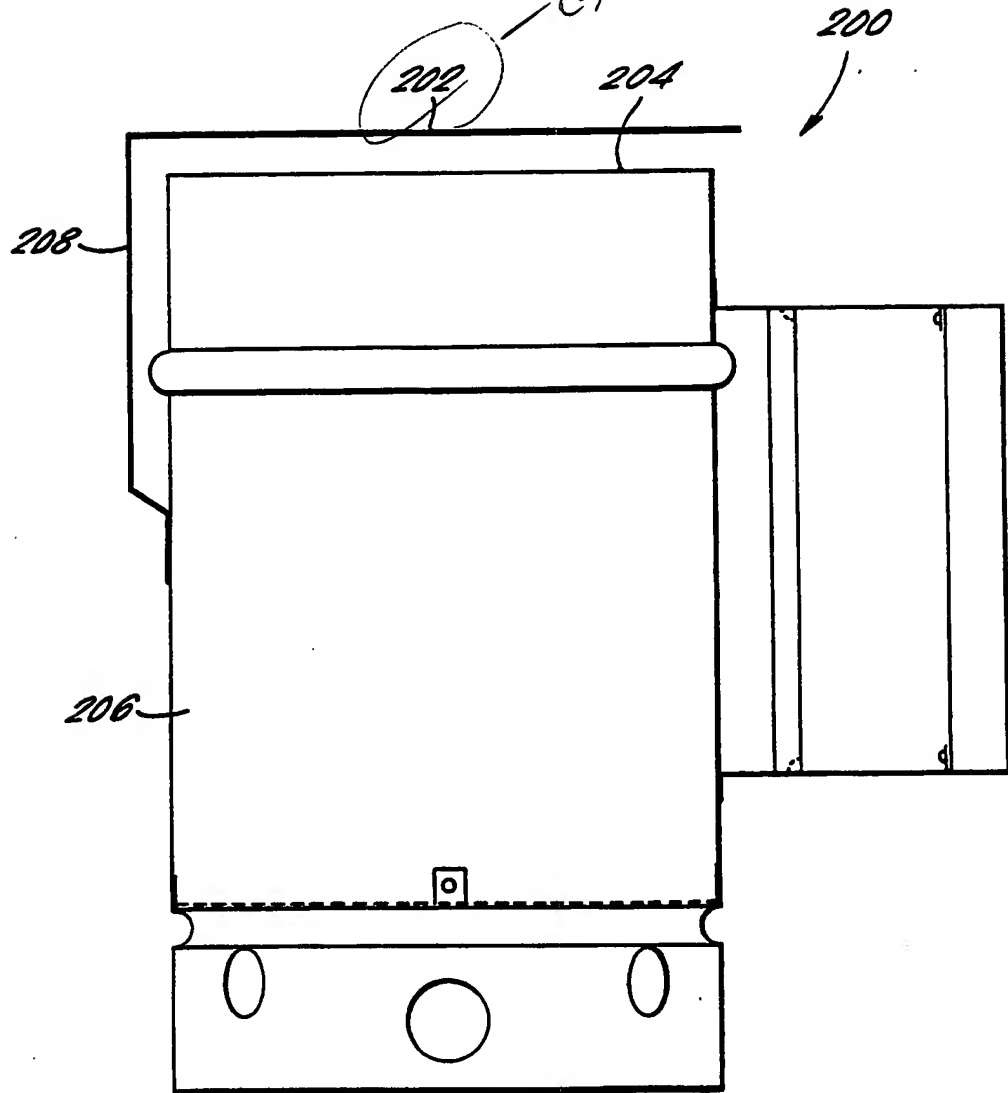
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FIG. 3.



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FIG. 4. Grill / Grids



### IMPROVEMENTS RELATING TO BARBECUES

The present invention relates to a barbecue and to a method of lighting the same as well as relating to a brazier and a method of lighting a barbecue using the brazier.

In the past many people have experienced great difficulty in lighting the charcoal or other combustible medium used in a barbecue to heat the food to be cooked. This in turn has led to the widespread use of solid fire lighters and/or lighter fluid. Both these substances however can be dangerous in inexperienced hands. Solid fire lighters are highly toxic and should not be taken internally while lighter fluid and its associated vapour, as well as being toxic, is so flammable that it can sometimes be applied to "encourage" a smouldering barbecue with disastrous consequences. Since barbecues are often family events to which children are invited these dangers are considered to be significant.

It is an aim of the present invention to provide a barbecue in which the charcoal or other combustible medium may be lit with the aid of a safer igniting medium such as paper.

According to a first aspect of the present invention, there is provided a barbecue comprising means to support the food to be cooked, a first grate means disposed below said supporting means to support the combustible medium used to heat the food to be cooked, a second grate means disposed below said first grate means to support a medium used to ignite the combustible medium, and a collecting receptacle disposed below said second grate means to collect matter falling from any of said supporting means or said first or second grate means. This provides the

advantage of enabling the barbecue to be lit without the aid of either solid fire lighters or lighter fluid.

Advantageously the barbecue may be provided with means to direct a passage of air from said second grate means to said first grate means. Preferably said means to direct a passage of air may include means to vary the quantity of air so directed.

Advantageously said second grate means may be contained within a housing, the housing defining with said second grate means and the collecting receptacle a chamber having at least one opening, the opening being provided with a flap that is moveable between a first position in which the flap substantially closes the opening and a second position in which the opening is at least partially exposed.

Advantageously said second grate means may be contained within a housing, the housing defining with said first and second grate means a chamber for the containment of the medium used to ignite the combustible medium having side walls that are substantially impervious to air.

Advantageously said second grate means may be disposed below only a portion of said first grate means.

According to a second aspect of the present invention there is provided a method of lighting a barbecue of the type previously described, the method comprising the steps of placing an igniting medium onto said second grate means, placing a combustible medium on to said first grate means, igniting the igniting medium and allowing the igniting medium to in turn ignite the combustible medium. This provides the advantage of enabling the barbecue to be lit without the aid of either solid fire lighters or lighter fluid.

Advantageously the method may comprise the additional step of directing a passage of air from said second grate means to said first grate means.

Advantageously the method may comprise the further additional step of varying the quantity of air so directed.

Advantageously the igniting medium may be paper.

Advantageously the combustable medium may be charcoal.

According to a third aspect of the present invention, there is provided a brazier having handle means and being so sized as to be capable of being held in the hand by the handle means while the contents of the brazier are alight. This provides the advantage of enabling a barbecue to be lit without the aid of either solid fire lighters or lighter fluid.

Advantageously the handle means may include a hand grip of non-thermally conducting material.

Advantageously the handle means may include a heat shield.

Advantageously the brazier may comprise means to direct a passage of air therethrough.

Advantageously the brazier may comprise a grill means disposed adjacent an open end of the brazier. Preferably the grill means may be moveable with respect to the brazier between a first position in which the grill means substantially overlies the open end of the brazier and second position in which access may be gained to the interior of the brazier.

According to a fourth aspect of the present invention there is provided a method of lighting a barbecue using a brazier of the type previously described, the method comprising the steps of placing an igniting medium within the brazier, placing on top of the igniting medium a quantity of a combustable



medium to be used to heat the food to be cooked, igniting the igniting medium, allowing the igniting medium in turn to ignite the combustable medium and transferring the ignited combustable medium to a barbecue. This provides the advantage of enabling the barbecue to be lit without the aid of either solid fire lighters or lighter fluid.

Advantageously the method may comprise the additional step of adding a further quantity of unlit combustable medium to the ignited combustable medium once the ignited combustable medium has been transferred to the barbecue.

Advantageously the igniting medium may be paper.

Advantageously the combustable medium may be charcoal.

A number of embodiments of the various aspects of the present invention will now be described by way of example with reference to the accompanying drawings in which:

Figure 1 is a cross-sectional view of a barbecue in accordance with the first aspect of the present invention;

Figure 2 is a schematic perspective view of a brazier in accordance with the third aspect of the present invention in which part of the brazier has been shown broken away;

Figure 3 is a schematic perspective view of the brazier of Figure 2 in which part of the brazier is shown broken away and filled with a quantity of paper and charcoal; and

Figure 4 is a lateral side view of a further embodiment of a barazier in accordance with the third aspect of the present invention.

Referring to Figure 1 a barbecue 10 embodying the first aspect of the present invention can be seen to comprise housing 12 mounted on one or more legs

14, the housing 12 including a base 16, a planer, substantially rectangular upper surface 18, and two lateral end plates 24 and 26 (only one of which is shown). The upper surface 18 is surrounded by a retaining wall 28 and is provided at intervals around its perimeter with one or more upstanding projections 30 capable of supporting a grill or gridiron 32 at different heights above the upper surface 18. In addition to this the upper surface 18 is also provided with a central channel 34 that extends longitudinally of the said surface 18 and is defined by depending side walls 36 and 38. A meshed grate 40 is hingedly connected to the upper surface 18 adjacent one side of the central channel 34 so as to be moveable between a first position in which the meshed grate 40 overlies the central channel 34 and a second position in which the meshed grate 40 is pivoted away from the central channel 34 to allow access to be gained thereto.

Within the central channel 34 a second meshed grate 42 is supported above the base 16 of the housing 12 by means of two inwardly directed flanges 44 and 46 attached respectively to the side walls 36 and 38. Beneath the second meshed grate 42 the two side walls 36 and 38 extend to meet the base 16 and are each provided with a respective one of a pair of slots 48 and 50 that run substantially the length of the central channel 34. The first of these slots 48 is covered by a flap 52 that is hingedly connected to an external surface 54 of the side wall 36 adjacent an upper edge of the slot 48 so as to be moveable between a first position in which the flap 52 substantially closes the slot 48 and a second position in which the slot 48 is at least partially exposed. Likewise slot 50 is covered by a second flap 56 that is hingedly connected adjacent an upper

edge thereof to an external surface 58 of the side wall 38. As with the first flap 52, this second flap 56 is also capable of being moved between a first position in which it substantially closes the slot 50 and a second position in which the slot 50 is at least partially exposed.

The flaps 52 and 56 are each provided with a respective one of two threaded bores 60 and 62 which are in turn engaged by a respective one of two correspondingly threaded bolts 64 and 66. The two bolts 64 and 66 are each provided at one of their ends with a respective one of two finger grips 68 and 70 while at their other ends the bolts 64 and 66 abut a respective one of the two side walls 36 or 38 at a point between the base 16 and the associated slot 48 or 50.

In use the gridiron 32 is disengaged from the upstanding projections 30 and the first meshed grate 40 pivoted into said second position so as to allow access to be gained to the central channel 34. A readily ignitable medium, such as paper, is then placed on to the second meshed grate 42 and the first meshed grate 40 pivoted back into said first position so as to again overlies the central channel 34. A small quantity of charcoal or other combustible medium is then placed on to the first meshed grate 40 and the readily ignitable medium lit by means of a match introduced through either one of the two slots 48 or 50. Once alight, the concentrated heat generated by the readily ignitable medium is sufficient to ignite the combustible medium supported by the first meshed grate 40 without the aid of either solid fire lighters or lighter fluid.

In order to control the speed with which both the readily ignitable medium and the combustable medium are consumed, the two bolts 64 and 66 may be rotated within their respective threaded bores 60 and 62 by means of the finger grips 68 and 70. Without the two bolts 64 and 66 the flaps 52 and 56 would hang under their own weight in their said first positions in such a way as to substantially close their respective slots 48 and 50. However by rotating the bolts 64 and 66 within their respective threaded bores 60 and 62 the flaps 52 and 56 may be pivoted with respect to their respective side walls 36 and 38 thereby exposing the associated slots 48 and 50 to a greater or lesser extent. This in turn determines the quantity of air that reaches the readily ignitable medium and consequently provides a means of controlling the rate at which both it and the combustable medium are consumed.

If paper is used as the readily ignitable medium it may be folded prior to being placed on to the second meshed grate 42 in order to slow down the rate at which it would otherwise be consumed.

Once the charcoal or other combustable medium is alight a further quantity of it may be added in order to provide sufficient to cover the entire upper surface 18. Thereafter the gridiron 32 may be re-engaged with the upstanding projections 30 at a suitable height above the upper surface 18 and cooking commence by placing thereon the food to be cooked.

It has been found that approximately fourteen sheets of lightly screwed up newspaper placed on the second meshed grate 42 is sufficient, when lit, to ignite approximately 1.5 kgs of charcoal placed on the first meshed grate 40 and to cause the charcoal to glow after approximately ten minutes.

Referring to Figure 2 a brazier 100 embodying the third aspect of the present invention can be seen to comprise a container 102 formed from a sheet of heat resistant material, such as galvanised steel, which has been folded upon itself and welded along a longitudinal seam 104. The container 102 is "closed" by a plate 106 of the same heat resistant material spaced a short distance from one end 108 and the plate 106 provided with a plurality of perforations 110. A further series of openings 112 are provided in the material of the container 102 between the plate 106 and said one end 108.

In addition to this the container 102 is also provided with a handle 114 having a hand grip 116 made of a non-thermally conducting material such as wood. A heat shield 118, again possibly formed of galvanised steel, is interposed between the hand grip 116 and the container 102.

The brazier 100 may be used to facilitate the lighting of a barbecue and in this mode of operation a quantity of paper or some other readily ignitable medium is placed within the container 102 to be supported by the perforated plate 106. A quantity of charcoal or other combustible medium is then placed on top of the paper as shown in Figure 3 and the paper lit by means of a match introduced in to the container 102 through one of the further series of openings 112. The air currents that pass upwardly through the container 102 from the further openings 112 by way of the perforations 110 fan the burning paper causing it to ignite the charcoal. When the charcoal is itself fully alight it may be transferred to the barbecue and used either in isolation or with a larger quantity of coals. In this way the barbecue may be lit without the need for either solid fire lighters or lighter fluid.

It has been found that approximately seven sheets of a lightly screwed up tabloid newspaper placed within the container 102 is sufficient, when lit, to ignite approximately thirty pieces of charcoal placed on top of the newspaper and to cause the charcoal to glow after approximately ten minutes.

The size of the brazier 100 and the nature of its handle 114 enables the brazier 100 to be held in the hand of a user even when its contents are alight and to be easily carried from one location to another. The provision of a heat shield 118 between the container 102 and the hand grip 116 serves to further protect the user.

In a further embodiment shown in Figure 4, the brazier 200 is provided with a grill or gridiron 202 disposed a short distance from the open end 204 of the container 206. The gridiron 202 is supported in this position by a supporting member 208 which is itself rigidly attached to the container 206. In a preferred arrangement, the grid iron 202 is pivotally connected to the supporting member 208 so as to be movable with respect to the brazier 200 between a first position in which the gridiron 202 substantially overlies the open end 204 and a second position in which the gridiron 202 is pivoted rearwardly to allow access to be gained to the container 206.

Once the contents of the brazier 200 have been lit in the manner previously described the gridiron 202 may be moved to its said first position and food placed on top to be cooked in the usual way.

CLAIMS

1. A barbecue comprising means to support the food to be cooked, a first grate means disposed below said supporting means to support the combustible medium used to heat the food to be cooked, a second grate means disposed below said first grate means to support a medium used to ignite the combustible medium, and a collecting receptacle disposed below said second grate means to collect matter falling from any of said supporting means or said first or second grate means.

2. A barbecue in accordance with Claim 1, wherein means are provided to direct a passage of air from said second grate means to said first grate means.

3. A barbecue in accordance with Claim 2, wherein said means to direct a passage of air includes means to vary the quantity of air so directed.

4. A barbecue in accordance with any preceding claim, wherein said second grate means is contained within a housing, the housing defining with said second grate means and the collecting receptacle a chamber having at least one opening, the opening being provided with a flap that is movable between a first position in which the flap substantially closes the opening and a second position in which the opening is at least partially exposed.

5. A barbecue in accordance with any preceding claim, wherein said second grate means is contained within a housing, the housing defining with said first and second grate means a chamber for the containment of the medium used to ignite the combustible medium having side walls that are substantially impervious to air.

6. A barbecue in accordance with any preceding claim, wherein said second grate means is disposed below only a portion of said first grate means.

7. A barbecue substantially as herein described with reference to Figure 1 of the accompanying drawings.

8. A method of lighting a barbecue in accordance with any preceding claim, the method comprising the steps of placing an igniting medium on to said second grate means, placing a combustable medium onto said first grate means, igniting the igniting medium and allowing the igniting medium to in turn to ignite the combustable medium.

9. A method in accordance with Claim 8, comprising the additional step of directing a passage of air from said second grate means to said first grate means.

10. A method in accordance with Claim 9, comprising the additional step of varying the quantity of air so directed.

11. A method in accordance with any of Claims 8 to 10, wherein the igniting medium is paper.

12. A method in accordance with any of Claims 8 to 11, wherein the combustable medium is charcoal.

13. A method of lighting a barbecue in accordance with any of Claims 1 to 7, the method being substantially as herein described with reference to Figure 1 of the accompanying drawings.

14. A brazier having handle means and being so sized as to be capable of being held in the hand by the handle means while the contents of the brazier are alight.

15. A brazier in accordance with Claim 14, wherein the handle means includes a hand grip of non-thermally conducting material.



16. A brazier in accordance with Claim 14 or 15, wherein the handle means includes a heat shield.

17. A brazier in accordance with any of Claims 14 to 16 and comprising means to direct a passage of air therethrough.

18. A brazier in accordance of any of Claims 14 to 17 and comprising a grill means disposed adjacent an open end of the brazier.

19. A brazier in accordance with Claim 18, wherein the grill means is movable with respect to the brazier between a first position in which the grill means substantially overlies the open end of the brazier and a second position in which access may be gained to the interior of the brazier.

20. A brazier substantially as herein described with reference to Figures 2, 3 and 4 of the accompanying drawings.

21. A method of lighting a barbecue using a brazier in accordance with any of Claims 14 to 20, the method comprising the steps of placing an igniting medium within the brazier, placing on top of the igniting medium a quantity of a combustable medium to be used to heat the food to be cooked, igniting the igniting medium, allowing the igniting medium to in turn ignite the combustable medium and transferring the ignited combustable medium to a barbecue.

22. A method in accordance with Claim 21, comprising the additional step of adding a further quantity of unlit combustable medium to the ignited combustable medium once the ignited combustable medium has been transferred to the barbecue.

23. A method in accordance with Claim 21 or Claim 22, wherein the igniting medium is paper.

24. A method in accordance with any of Claims 21 to 23, wherein the combustable medium is charcoal.

25. A method of lighting a barbecue using a brazier in accordance with any of Claims 14 to 20, the method being substantially as herein described with reference to Figures 2, 3 and 4 of the accompanying drawings.

**Patents Act 1977**  
**Examiner's report to the Comptroller under**  
**Section 17 (The Search Report)**

Application number

GB 9217051.3

**Relevant Technical fields**

(i) UK CI (Edition L ) A4D (D9A)

(ii) Int CI (Edition 5 ) A47J 37/07

**Search Examiner**

N A FRANKLIN

**Databases (see over)**

(i) UK Patent Office

(ii) ONLINE DATABASES: WPI

**Date of Search**

JUNE 1993

Documents considered relevant following a search in respect of claims 1 TO 7, 8 TO 13

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2178945 A (MECO) note grates 32, 68/72 in Figure 2	1,2,3,6, 8,9,10, 12
X	US 3915144 (TOMITA) note grates 6,28 in Figure 1; column 6, lines 19-22	1-5, 8-12

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	to claim(s)

#### Categories of documents

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